

## WHAT IS CLAIMED IS:

1. A method of transmitting a plurality of voice communications from respective end points to an access point, comprising the steps of:
  - (a) providing a point-to-multipoint network operative to send packets from the end points to the access point;
  - (b) for each end point:
    - (i) negotiating a respective alias with the access point, and
    - (ii) configuring the respective voice communication as a voice payload;
  - (c) concatenating a single superpacket header with said aliases and with said voice payloads to form a superpacket; and
  - (d) sending said superpacket to the access point via said point-to-multipoint network.
2. The method of claim 1, wherein said point-to-multipoint network is configured according to OSI layer 2.
3. The method of claim 1, further comprising the step of:
  - (d) at the access point:
    - (i) receiving said superpacket; and
    - (ii) unbundling said superpacket into a plurality of received packets, each said received packet corresponding to a respective said voice packet, each said received packet

including a header configured according to said respective alias.

4. The method of claim 1, wherein said voice payloads are G.729 payloads.
5. The method of claim 1, wherein said superpacket header is an Ethernet header.
6. The method of claim 1, wherein said aliases are interleaved with said voice packets in said superpacket.
7. The method of claim 1, wherein said superpacket header includes a type field that indicates that said superpacket header is followed by said aliases and by said voice packets.
8. The method of claim 1, wherein each said alias includes a respective station ID, and wherein, for each end point, said negotiating of said respective alias includes negotiating said respective station ID.
9. The method of claim 1, further comprising the step of:
  - (e) synchronizing said voice packets, prior to said concatenating.
10. The method of claim 1, wherein said negotiating and said concatenating are effected only by providing, in said point-to-multipoint network, a

voice-over-IP gateway operative to effect said negotiating and said concatenating, and then effecting said negotiating and said concatenating using said voice-over-IP gateway.

11. A system for transmitting a plurality of voice packets from respective end points to an access point, comprising:

- (a) a voice-over-IP gateway for:
  - (i) negotiating, with the access point, a respective alias for each end point,
  - (ii) receiving, from each end point, a respective voice payload, and
  - (iii) concatenating a single superpacket header with said aliases and with said voice payloads to form a superpacket; and
- (b) a mechanism for transmitting said superpacket to the access point.

12. The system of claim 11, wherein said mechanism includes a wireless point-to-multipoint network.

13. The system of claim 11, wherein said mechanism includes a cable TV point-to-multipoint network.

14. The system of claim 11, wherein said mechanism is configured according to OSI layer 2.